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ABSTRACT

In order to address the problems of student success, student retention, and an improved sense of community among students and faculty, Florida Community College at Jacksonville (FCCJ) implemented a three-year project of cooperative learning. The FCCJ Cooperative Learning Project, funded from 1993-1996, focused on changing the culture of the college classroom. Faculty were provided with several levels of intensive training in cooperative learning strategies. FCCJ faculty and students participated in systematic data collection in order to measure the impact and effectiveness of cooperative learning environments. In addition, the Southeastern Center for Cooperative Learning was established at FCCJ in order to provide on-going research on cooperative learning environments and provide ongoing training. The Cooperative Learning Program has proven to be a cost effective means of reforming the classroom and improving student outcomes. Overall, students preferred cooperative learning over traditional methods. They demonstrated significant gains in achievement, retention in the classroom, critical thinking skills, improved teamwork skills, and an increased sense of community between students and faculty, demonstrating the value of cooperative learning. Appendices include the faculty development model, student survey, Center information, presentations, grant information, and a summative evaluation report. (YKH)

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ED 413 946

Cooperative Learning: A Catalyst for Change in the College Classroom

Final Report: Fund for the Improvement of Postsecondary Education Grant

Susan S. Hill

Fund for the Improvement of Postsecondary Education

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Florida Community College at Jacksonville
501 West State Street
Jacksonville, Florida 32202-4030

Grant Number: P116B30717-95

Project Dates:

Starting Date: September 1, 1993
Ending Date: August 31, 1996
Number of Months: 36

Project Director:

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FIPSE Program Officer: Charles Storey

Grant Award:		
	Year 1	59,200
	Year 2	85,373
	Year 3	80,769
		225,342

Project Summary

The major objective of this project was to provide intensive training in cooperative learning strategies in order to improve the teaching/learning process. Results of this three-year study indicated that when cooperative learning strategies were implemented there was improved student achievement, improved student retention, positive attitudes toward teamwork, improved critical thinking skills and increased course satisfaction. The final outcome of the project created the Southeastern Center for Cooperative Learning at Florida Community College.

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Project Title: Cooperative Learning: A Catalyst for Change in the College Classroom

Executive Summary

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Cooperative Learning: A Catalyst for Change in the College Classroom
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Executive Summary

Project Overview

There is a national concern with teaching/learning issues and the impact they have on students and faculty. Numerous reports and research articles indicate that students should be active, not passive learners. College faculty should be the critical players in the effort for shifting classroom instruction from passive learning strategies such as traditional lecture and rote learning to using more active learning strategies, specifically cooperative learning. Overall, this FIPSE project focused on change in the classroom. A three-dimensional approach involved training faculty in cooperative learning using the theories and strategies developed by Roger and David Johnson at the University of Minnesota, determining the implementation levels over time, assessing the impact of cooperative learning in the classroom, and developing the Southeastern Center for Cooperative Learning. Activities spanned a period of three years beginning September 1993. Approximately 142 Florida Community College (FCCJ) faculty and 33 faculty from other educational institutions received training in cooperative learning at the Foundations level, Advanced level and Leadership level. At the end of the grant, the Southeastern Center for Cooperative Learning was established in order to provide the basis for an on-going cooperative learning effort at FCCJ and other higher education institutions. This project's focus on an intensive, long-term cooperative learning training process has resulted in wide-spread implementation of cooperative learning strategies across disciplines in FCCJ classrooms and has resulted in a significant impact on student learning outcomes.

Purpose

This project addressed the broad problems of student success, student retention in classrooms and an improved sense of community among students and faculty. Florida Community College, like other community colleges throughout the country, has a diverse, multi-ethnic, nontraditional commuter student population, a senior faculty, a high ratio of adjunct faculty to full-time faculty and limited resources. There is a concern about the success of our students in the upper level institutions to which they transfer. This situation posed a challenge to the college to find innovative, cost-effective solutions that would enable a significant number of faculty to become proficient in teaching/learning strategies that would improve learning environments and thus improve learning outcomes. FCCJ college faculty are long-time faculty members who over the years were often involved in short-term seminars for teaching improvement. These seminars rarely changed the teaching/learning environment of the classroom. However, the faculty development model used in this project provided intensive training in an effort to significantly impact the classroom. What this project has revealed is that intensive training and support between training sessions is required in order to put theory into practice. Many previous studies have looked to reform the classroom by developing a menu of new curriculum and delivery designs, some including cooperative learning. This project however focused on placing large amounts of time and energy into giving faculty the tools and the time needed to conceptually change their approach to teaching, and to change the dynamics and culture of the classroom. In addition, creating a truly collegial environment for experimenting with cooperative learning tends to re-energize the entire institution. This energy was evident when administrators studied cooperative learning strategies in groups with faculty. This need for creating a cooperative environment for changing teaching/learning cannot be stressed enough. The environment for risk-taking and a supportive

and well-informed cadre of administrators are essential elements. For example, an administrator familiar with cooperative learning concepts would interpret students working busily in cooperative groups as productive use of class time while an administrator not familiar with cooperative learning concepts might not see this as real teaching and respond with "I'll come back to observe when you are teaching." Both administrators and faculty must be informed and aware of the rationale and conceptual framework for cooperative learning.

Background and Organization

Florida Community College at Jacksonville is a multi-campus institution which serves 94,000 students in Northeast Florida each year. The area's largest city - Jacksonville - is a growing, coastal city of more than 700,000 people. This project grew out of a college environment created by the FCCJ administration beginning in 1983. This administration promoted and supported faculty initiatives that focused on changing the college classroom to meet the needs of students entering the new millennium. More specifically, several faculty developing this project were inspired by the ideas of K. Patricia Cross, who states "The biggest and most long-lasting reforms of undergraduate education will come when individual faculty or small groups of instructors adopt the view of themselves as reformers within their immediate sphere of influence, the classes they teach everyday." In 1988, FCCJ faculty established the Center for the Advancement of Teaching and Learning. The purpose of this center was to study the research on "good teaching practices" and pilot innovative ideas that warranted further research. One such idea was cooperative learning strategies. Several FCCJ faculty had already researched this concept and in 1992 the Center sponsored National Conference on College Teaching and Learning hosted Roger Johnson as a keynote speaker. From this conference a pilot program in intensive training was launched, which included a cadre of 25 "early innovators" from across all disciplines in the college. The response was strong and positive and thus was born the FIPSE Proposal, Cooperative Learning: A Catalyst for Change in the College Classroom. After successful funding by FIPSE, the pilot program was slightly refined and a training model for intensive training aimed at higher implementation was designed.

Project Description

The FCCJ Cooperative Learning Project funded from 1993-1996 focused on changing the culture of the college classroom by supporting three main objectives.

The first objective of the project was to provide several levels of intensive training in cooperative learning strategies for faculty. For three years, FCCJ offered 40 hour training sessions at both the Foundations and Advanced levels of cooperative learning. These were taught in a series of three separate sessions 6 - 8 weeks apart, thus allowing for time to put theory into practice in the classroom. Leadership training provided a third level of training wherein a cadre of highly trained faculty are now certified to teach Foundations and Advanced courses. Thus, FCCJ can now provide continuous training for faculty within FCCJ as well as for other higher education institutions.

The second objective was to measure the impact of cooperative learning on students and faculty in the classroom. For three years, FCCJ faculty and students participated in systematic data collection in order to measure the effectiveness of cooperative learning environments in the classroom. Overall, the data indicated that students in cooperative learning environments demonstrated significant gains in achievement, retention in the classroom and critical thinking skills. In addition, students felt a greater sense of community within the classroom and showed a distinct preference for cooperative learning strategies over traditional ones.

The third major objective of this project was to establish the Southeastern Center for Cooperative Learning at FCCJ in order to provide an on-going effort to research cooperative learning environments and to provide on-going training within and outside of FCCJ. In July of 1996 the FCCJ Board of Trustees gave approval to fund the center from the college's operating budget. Thus, the cooperative efforts of the director, co-directors, faculty, students and administration have culminated in the Southeastern Center for Cooperative Learning which has already launched several programs for training college faculty in cooperative learning strategies, both within and outside of FCCJ.

Evaluation/Project Results

During the three year funding period, 142 of FCCJ's faculty and 33 faculty from other institutions received either 40 or 80 hours of training in cooperative learning strategies using the Johnson model. In addition, over 14,000 students per term have been impacted as these 142 faculty implement cooperative learning techniques in 568 classrooms. Over 1,700 students from 10 different disciplines participated in a study concerning success and retention rates. Class comparisons between cooperative learning and control groups indicated that 50% of the cooperative learning classes showed a statistically significant increase in retention rate. Students in cooperative learning classes experienced greater improvement in critical thinking skills than did their counterparts in more traditional classrooms. Those students who were taught in cooperative learning classes in English composition and reading courses significantly improved their critical thinking skills, while a comparable group of students in mathematics courses did not show a significant increase. Other survey data indicated that 71% of the students experienced a greater sense of satisfaction about what they had learned in a cooperative learning setting. In addition, students in cooperative learning classes show significant improvement in their teamwork skills and their attitude toward acceptance of alternative perspectives. In conclusion, the Cooperative Learning Program at FCCJ has proven to be a most cost-effective way of reforming the college classroom and significantly improving student outcomes.

Summary and Conclusions

As a result of this project, the success level (achievement) of our students was significantly increased, retention of students in the classroom was increased, critical thinking skills were significantly increased, and a sense of community was developed between and among students and faculty when cooperative learning strategies were used in the college classroom environment. Thus, this project adds to the body of research that demonstrates that cooperative learning works in higher education settings. It is evident that other colleges and universities should take serious steps to create initiatives that promote the implementation of cooperative learning strategies in the classroom. In addition, this project has provided some important insights on how to change the culture of the classroom. First, we have learned that in order to promote a major change from traditional teaching methods (like lecture) to more innovative active methods like cooperative learning requires intensive training over time with opportunities to put theory into practice. This training must also include follow-up activities that provide collegial support for change. Equally important is the unequivocal support of administration for creating an environment that supports risk-taking. These factors work together to provide a high implementation of newly learned strategies which in turn work together to create a positive impact on student learning. Based on the results of this project, it is recommended that further research explore the use of cooperative learning in college classrooms and that studies be conducted to isolate specific factors within groups and within disciplines that further explain the positive impact of cooperative learning. It is also recommended that cooperative learning strategies be expanded into areas of curriculum development and reform.

Final Report

Project Overview

There is a national concern with teaching/learning issues and the impact they have on students and faculty. Numerous reports and research articles indicate that students should be active, not passive learners. College faculty should be the critical players in the effort for shifting classroom instruction from passive learning strategies such as traditional lecture and rote learning to using more active learning strategies, specifically cooperative learning. Several national conferences in 1994/95/96 have specifically focused on the positive effects of using cooperative learning strategies in higher education. Many grants include teamwork or cooperative learning as a component of professional development. In addition, several states have mandated the use of cooperative learning/active learning strategies in statewide educational reform. What is often not clear is how to change from traditional learning methods to active learning strategies or how long it takes for this kind of conceptual change in teaching to occur. This study isolates a key factor in creating a paradigm shift in college classrooms: intensive training in strategies that promote active learning. This cooperative learning project provided intensive training and practice in cooperative learning strategies to approximately 175 faculty (full-time and adjunct) in an effort to teach them how to implement cooperative learning in order to improve student success and retention in classes as well as to create a sense of community among students and faculty.

Overall, this FIPSE project focused on change in the classroom. A three-dimensional approach involved training faculty in cooperative learning using the theories and strategies developed by Roger and David Johnson at the University of Minnesota, determining the implementation levels over time, assessing the impact of cooperative learning in the classroom, and developing the Southeastern Center for Cooperative Learning. Activities spanned a period of three years beginning September, 1993. Approximately 142 Florida Community College at Jacksonville (FCCJ) faculty and 33 faculty from other educational institutions received training in cooperative learning at the Foundations level, Advanced level and Leadership level thus providing the basis for an on-going cooperative learning effort at FCCJ and at other institutions in the region through the Southeastern Center for Cooperative Learning established at the end of the grant. During the first, second, and third year of the grant, the opportunities for training in cooperative learning were enthusiastically received by both FCCJ and regional college faculties. Enrollments and enthusiasm exceeded expectations. Cooperative learning has now impacted 36% of FCCJ full-time faculty. Participants in the Foundations seminars have completed 40 hours of training, and participants in Advanced seminars have completed 80 hours of training. Eighteen faculty members also completed 40 hours of Leadership training. Two faculty members have completed 40 hours of Advanced Leadership training. (For these faculty a total of 160 hours of cooperative learning training). This intensive long-term cooperative learning training process has resulted in wide-spread implementation of cooperative learning strategies across disciplines in FCCJ classrooms.

The goals of the project were to improve student success and retention, to increase a sense of community among faculty and students and to promote active teaching and learning through cooperative learning. As a result of this project, the success level of our students was significantly increased. Retention of students in the classroom was increased, critical thinking skills were significantly increased and a sense of community was developed between and among students and faculty. Faculty across several disciplines have participated in gathering data to support the goals and objectives of the project. Preliminary survey data indicates that 71% of the students experienced a greater sense of satisfaction about what they had learned in a cooperative learning setting. Eighty-seven percent of these students indicated that they were active participants in class. In addition, over 1,700 students from 10 different

disciplines participated in a study concerning success and retention rates. Class comparisons between cooperative learning and control groups indicated that 50% of the cooperative learning classes showed a statistically significant increase in success rate. Class comparisons between cooperative learning and control groups indicated that 40% of the cooperative learning classes showed a statistically significant increase in retention rate. A student exit survey indicated that students preferred cooperative learning over non cooperative learning. Indeed, the Cooperative Learning Program at FCCJ has proven to be a most cost-effective way of reforming the college classroom and significantly improving retention and student success. It is evident that other institutions of higher learning should take serious steps to incorporate cooperative learning in their classrooms.

Cooperative learning is having a wide-spread impact on the college classrooms at FCCJ. As faculty gain confidence and expertise in cooperative learning strategies, more significant results are expected. In July of 1996, FCCJ board members approved establishment of the Southeastern Center for Cooperative Learning as a part of the FCCJ operating budget. The center will continue to provide leadership and training in cooperative learning methodology and to disseminate information concerning the benefits derived from the project not only in-house but also to other institutions of higher education.

The Cooperative Learning Program was a key factor in the college being awarded a Certificate of Excellence in 1995 for the Theodore M. Hesburg Award for Faculty Development. In addition, the grant team was the recipient of a Faculty Development Recognition Award from The Consortium for Community College Development in 1996.

Purpose

This project addressed the broad problems of student success, student retention in classrooms and an improved sense of community among students and faculty. Florida Community College at Jacksonville, like other community colleges throughout the country, has a diverse, multi-ethnic, nontraditional commuter student population, a senior faculty, a high ratio of adjunct faculty to full-time faculty and limited resources. There is a concern about the success of our students in the upper level institutions to which they transfer. This situation posed a challenge to the college to find innovative, cost-effective solutions that would enable a significant number of faculty to become proficient in teaching/learning strategies that would improve learning environments and thus improve learning outcomes. In addition, college faculty were the key players in the reform efforts needed to shift classroom instruction from passive learning strategies such as traditional lecture and rote learning to using more active learning strategies such as cooperative learning. FCCJ college faculty are long-time faculty members who over the years were often involved in short-term seminars for teaching improvement. These seminars rarely changed the teaching/learning environment of the classroom. However, the faculty development model used in this project provided intensive training in an effort to significantly impact the classroom.

What this project has revealed is that intensive training and support is required between training sessions to put theory into practice. Many previous studies have looked to reform the classroom by developing a menu of new curriculum and delivery designs, some including cooperative learning. This project however focused on placing large amounts of time and energy into giving faculty the tools and the time needed to conceptually change their approach to teaching and to change the dynamics and culture of the classroom. This project's focus on the tools needed to change, over an extended period of time with collegial support, allowed faculty the opportunity to gain skill and confidence through gradual

implementation and continuous training. The high level of implementation resulted in a strong positive impact on student success and faculty success. The experiences and planning involved in implementing a project of this magnitude provided insights about lessons learned and pitfalls to avoid. The most obvious "administrative" pitfalls to avoid include:

1. Lack of a long-term plan (for training and implementing and evaluating cooperative learning). (Often grants or colleges will create a project that includes an 8 or 10 hour component; FCCJ used 40-80 hours of cooperative learning training).

2. A lack of grassroots support paired with top down support. Faculty are the agents of change in the classroom, but administrators must create a positive environment for risk-taking.

3. Lack of sufficient time in training and follow-up support activities which allows for back-sliding into old habits.

Overall, creating a truly collegial environment for experimenting with cooperative learning tends to re-energize the entire institution. This energy was evident when faculty and administrators studied cooperative learning strategies side by side in small groups. This need for creating a cooperative environment for changing the teaching/learning environment cannot be stressed enough. The environment for risk-taking and a supportive and well-informed cadre of administrators are essential elements. For example, an administrator familiar with cooperative learning concepts would interpret students working busily in cooperative groups as productive use of class time while an administrator not familiar with cooperative learning concepts might not see this as teaching and respond with "I'll come back to observe when you are really teaching." Both administrators and faculty must be informed and aware of the rationale and conceptual framework for cooperative learning. This provides a smooth transition for students who are adjusting to new ways of learning.

Background and Organization

Florida Community College at Jacksonville is a multi-campus institution which serves 94,000 students in Northeast Florida each year. The area's largest city — Jacksonville — is a growing, coastal city of more than 700,000 people.

This project grew out of a college environment created by the FCCJ administration beginning in 1983. This administration promoted and supported faculty initiatives that focused on changing the college classroom to meet the needs of students entering a new millennium. More specifically, several faculty developing this project were inspired by the ideas of K. Patricia Cross, who states "The biggest and most long-lasting reforms of undergraduate education will come when individual faculty or small groups of instructors adopt the view of themselves as reformers within their immediate sphere of influence, the classes they teach every day." One faculty initiative that grew from these seeds of inspiration was the FCCJ Center for the Advancement of Teaching and Learning established by faculty in 1988.

The purpose of this center was to study the research on good teaching practices and pilot innovative ideas that warranted further research. One such idea was cooperative learning practices. Several FCCJ faculty had already researched this concept and in 1992 the Center-sponsored National

Conference on College Teaching and Learning hosted Roger Johnson as a keynote speaker. From this conference a pilot program in intensive training was launched, which included a cadre of 25 "early innovators" from across all disciplines in the college. The response was strong and positive and thus was born the FIPSE Proposal, Cooperative Learning: A Catalyst for Change in the College Classroom. After successful funding by FIPSE, the pilot program was slightly refined and a training model for intensive training aimed at high implementation was designed (see Appendix A).

During the three year funding period, over 142 of FCCJ's full time faculty and staff received either 40 or 80 hours of training in cooperative learning strategies using the Johnson model. In addition, over 14,000 students per term have experienced cooperative learning as these 142 faculty implemented cooperative learning strategies in 568 classrooms. Additionally, faculty at several other institutions were provided an opportunity to join FCCJ faculty in the training. Overall this project was highly successful and according to Roger Johnson: "The FCCJ model is the most carefully planned, systematic, successful implementation of cooperative learning anywhere in the nation."

Project Description

The FCCJ Cooperative Learning Project focused on changing the culture of the college classroom by supporting three main objectives:

1. Providing intensive training in cooperative learning theories and strategies.
2. Assessing the impact of cooperative learning in the classroom.
3. Establishing the Southeastern Center for Cooperative Learning at Florida Community College in order to provide on-going training, research and dissemination of information and models to other institutions.

Before describing each of these three main features, several key factors are critical to understanding how the project was planned and the conditions for the project's development.

First in this area was the critical factor of internal support. Why did 175 teachers voluntarily study cooperative learning? A key element to understanding the success of this project is that this project was created by faculty, and then supported by administrators. A cadre of 25 early innovators were the first to be trained in the pre-grant pilot program, and this group continued to study and implement cooperative learning as well as share information with colleagues. Success stories, hard work on the part of the director and co-directors and support by administrators led to a gradual increase in the number of faculty trained to implement cooperative learning. Thus, internal support for this project from faculty and administration was a key factor in its success. Cooperative learning in the classroom was a catalyst for cooperation in the college. A description of the main objectives follows.

The first objective of the project was to provide graduated levels of intensive training. This was accomplished in several ways. The Johnson model of cooperative learning has two distinct levels of training, Foundations of Cooperative Learning and Advanced Concepts of Cooperative Learning, each of which includes 40 hours of training and modeling of cooperative learning strategies. This intensive degree of training is one feature that stands out regarding the FCCJ training model. Some grants and projects involving cooperative learning that have been reviewed in the literature often include an 8-12

hour segment of cooperative learning training mixed in with other training venues. Many of these projects reported that there there was not a measurable impact on student related data. FCCJ sought to create a training model where cooperative learning would be highly implemented; thus the FCCJ model included 40 or 80 hours of training with a substantial number of strategically planned follow-up activities such as informal conversations about successes and challenges, syllabus planning workshops, etc. These activities are explained in the FCCJ Professional Development Model (see Appendix A). This intensive amount of training led to high levels of implementation of cooperative learning and therefore a significant impact on teaching and learning resulted. The 40 hours of training were spread over 3 sessions with 4 - 8 weeks between. This allowed participants to have an opportunity to put theory into practice in the classroom as well as provide opportunities to attend the wide variety of follow-up workshops designed to provide support for new challenges as well as a comfortable environment for discussing strategies and sharing ideas and problems. Once Foundations training was completed, faculty could continue developing and refining cooperative learning concepts through Advanced training or follow-up workshops. Thus, an environment for continuous improvement was created. Leadership training provided a third level of training wherein 18 highly involved faculty were selected to attend an additional 40 hours of training on how to teach Foundations. Two of these faculty completed further training in how to teach Advanced cooperative learning. Thus, FCCJ can now provide continuous training for faculty within FCCJ as well as for other higher education institutions.

The second objective was to measure the impact of cooperative learning on students and faculty in the classroom. A detailed explanation of the design and methodology used in this study is described in the evaluation section of this report. A three year plan for measuring the impact of cooperative learning was designed at the beginning of this project. The plan included creating self-report survey instruments, using data from FCCJ grade distributions as well as selecting a standardized test for use in measuring critical thinking. This three year plan had several refinements after data was collected in the early part of the study. Overall, the data showed that students in cooperative learning environments showed significant gains in achievement, retention in the classroom and critical thinking skills. In addition, students felt a greater sense of community within the classroom and showed a distinct preference for cooperative learning classroom environments over traditional ones.

The third major objective of this project was to establish the Southeastern Center for Cooperative Learning at FCCJ in order to provide an on-going effort to research cooperative learning environments and to provide on-going training within and outside of FCCJ. Institutionalizing this project was again a cooperative effort between the director and co-directors of this project and the administration. Throughout 1995/96 several planning meetings led up to a proposal for the Southeastern Center. In July of 1996 the FCCJ Board of Trustees gave approval to fund this project from the college's operating budget. Thus the hard work of the director and co-directors, the faculty, students and administration of FCCJ culminated in the Southeastern Center for Cooperative Learning whose philosophy is to empower faculty members with the strategies, research, confidence, and collegial support for them to be creators of cooperative learning environments and reformers in their classrooms. Already the Southeastern Center for Cooperative Learning has launched its 1996/97 training workshops in cooperative learning and is planning workshops for other institutions.

Evaluation/Project Results

The following section is divided into 11 objectives, each representing one aspect of evaluation. These objectives are arranged in the order in which they appeared in the workplan of the grant.

Objective 1 **To improve the classroom instructional skills of approximately 200 faculty members through training in cooperative learning techniques.**

Over the three year period of the grant, faculty were given an opportunity to participate in 40 or 80 hours of intensive training in cooperative learning techniques in either Foundations or Advanced cooperative learning.

The 40 hours were spread over 3 sessions with 4 - 8 weeks between to allow participants to implement these strategies in their classrooms. (Sessions were held all day Friday and half-day Saturday). After each session, a wide variety of follow-up workshops were conducted to provide support for these faculty.

After the 40 hours of Foundation training were completed, faculty could continue to develop and refine cooperative learning strategies through Advanced training. These sessions were scheduled the same as the initial training.

Further training at the leadership level was also available through the grant. Eighteen faculty members completed 40 hours in Foundations Leadership; two faculty members completed 40 additional hours in Leadership for teaching the Advanced level.

The method used to validate that the faculty were indeed implementing cooperative learning methods in their classrooms was collected from several data sources as listed below.

1. Faculty completed a log of cooperative learning activities in courses where they implemented cooperative learning.

2. Syllabi were collected from the faculty who had completed 40, 80 or 80+ hours of training.

3. Several faculty volunteered to have new recruits observe in their classroom during cooperative learning activities.

4. Another process of validating the cooperative learning skills of faculty was in the evaluation of the student-centered objectives. Approximately 50 faculty identified as high implementers of cooperative learning techniques were involved with all phases of this evaluation process.

Overall, 142 FCCJ faculty and 33 faculty from other educational institutions received training in cooperative learning at either the Foundations level, Advanced level, and/or Leadership level.

As the project progressed, it became evident that data was needed to focus not only on just the training but on the development of faculty skills over time. Thus, the following data describes the implementation levels of faculty as they progressed in training.

Table 1

Degree of Implementation

	Base Groups	Informal Groups	Formal Groups
Types of Cooperative Learning Groups Implemented			
Before Advanced Training	48%	84%	39%
After Advanced Training	59%	77%	69%

	Syllabus	Grading
Use of Cooperative Learning Reflected in:		
Before Advanced Training	33%	48%
After Advanced Training	44%	56%

Use of Cooperative Learning to Complement Lecture	
Before Advanced Training	60%
After Advanced Training	76%

Note. Percentages indicated implementation usage from 75 faculty who had completed a minimum of 80 hours of cooperative learning training.

As the data shows, degree of implementation of cooperative learning strategies is directly linked to the amount of training received. After the initial 40 hours of training, faculty were limited in their usage of cooperative learning as can be seen from this chart; after advanced training, use of cooperative learning in the classroom increased markedly.

Formal cooperative learning activities are the most complex to implement and the chart indicates a 30% increase in usage by these groups after an additional 40 hours of training.

Objective 2 **To develop a sense of community between and among students and faculty as evidenced by increased interactions outside the classroom.**

Method

The methodology used to assess an increase in student and faculty interactions outside of the classroom was conducted over the three years of the grant.

Year one. A student self-report open-ended survey was distributed at the end of the winter term to 650 students and 16 faculty who were trained in cooperative learning strategies. Students responded to this question: "Have you been in touch (socially and/or academically) with another student from this class outside of the classroom?"

Year two. The student self-report survey administered during the second year was given to 129 students enrolled in classes where cooperative learning techniques were being implemented. Students responded to a Likert-scale question: "To what degree have you contacted other students in this class outside of the classroom socially and/or academically?"

Year three. During the third year a pre/post self report survey was given to both students in cooperative learning classrooms and to their matching classes taught in non-cooperative settings (see Appendix B). This method involved 154 students from six different disciplines. The statistical analysis used was a test of proportions to indicate whether the difference in proportions was statistically significant.

Students responded to a Likert-scale question both at the beginning of the term and at the conclusion: "Outside of the classroom, I have contacted fellow students,socially and/or academically."

Faculty participants responded to questions posed to them through documents that gathered implementation levels of usage of cooperative learning which included anecdotal information.

Results

Year one. Sixty-six percent of the students in cooperative learning classes indicated that they had been in contact (socially and/or academically) with another student from their class outside of the classroom.

Year two. Fifty-nine percent of the students in cooperative learning classes indicated an increase in their contacts with other students outside of the classroom.

Year three. In the pre/post self-report survey student responses to the question of increased interaction outside of the classroom were analyzed statistically; students in cooperative learning environments showed a significant increase in social and/or academic contact ($p < .05$).

Year one, two, and three. Anecdotal evidence gathered regarding faculty interaction resulted in some of the following comments: "...great exchange of ideas, encouragement, discussion of problems, successes...."

"I discovered different strategies to use."

Anecdotal evidence gathered from the students resulted in some of the following comments: "... helps to talk things over with other students."

"I like the (base) group. We care about each other. I 'need' these people."

Interpretation

The responses from both faculty and students indicate that cooperative learning promotes more interaction among both student/student, faculty/student, and faculty/faculty.

For example, one student recently related to a faculty member that because of on-going interaction that was included in a cooperative learning classroom two terms ago this student has re-enrolled in FCCJ classes after a two-term hiatus.

Objective 3 **To evaluate the effectiveness of cooperative learning as a means of achieving stated faculty and student objectives set forth in this project.**

Method

In order to evaluate the effectiveness of cooperative learning a three year plan was initiated to provide data to study the impact of cooperative learning in the classroom. The external evaluator met regularly with the grant leaders including the internal evaluator to discuss refinements to the design as well as to create survey tools. The faculty leadership council also met in "think tank" sessions to add to the research design.

Results

Overall, this process of design-discussion-redesign worked well in helping to refine several survey instruments in order to measure the impact of cooperative learning in the classroom. At the end of each year a separate evaluation report was written by the internal evaluator and reviewed by the external evaluator and by the FIPSE staff in an effort to mark progress and make changes so that the final report would be more complete.

Objective 4 **To establish the Southeastern Center for Cooperative Learning as a means of disseminating cooperative learning throughout the region.**

Method

The FCCJ Southeastern Center for Cooperative Learning was established in July of 1996. Throughout the third year of the grant (1995/96) the director and co-directors of the grant met with the FCCJ Executive Vice President, the Vice President for Institutional Effectiveness, the college Financial Officer and other key staff members to create the Southeastern Center. In October of 1995 a formal proposal was written and submitted to the Executive Vice President. After his approval, the Executive Vice President took full responsibility for advancing this proposal through the budgeting and Board approval process. The proposal explains the philosophy and organization for the continuance of the Center (see Appendix C). Due to the direct relationship to student success that is demonstrated by this project we expect the college to continue budgeting the Center as it seeks to further explore cooperative learning in the college classroom. Already, the Center has developed a brochure and professional network that publicizes the availability of services and information (see Appendix D).

Results

The successful institutionalization of cooperative learning is yet another example of how cooperation and communication within the college can lead to great progress within the educational community.

Objective 5 To disseminate results of this project to the educational community.

Method

Results of this study were disseminated to the educational community in a variety of ways. Presentations were made at professional meetings and conferences (see Appendix E). Local colleges were included in seminar activities, the director held meetings with deans of local colleges, and the annual FCCJ National Conference on College Teaching and Learning was used as a means for networking with other colleges and universities nationwide. In addition, FCCJ faculty created several handbooks of instructional strategies, a book of cases on cooperative learning and a training video. These items are available through the Southeastern Center. Faculty from Washtenaw Community College in Ann Arbor and Richland Community College in Dallas were among colleges who observed cooperative learning seminars and have used the FCCJ model in order to create a cooperative learning initiative at their institutions.

Results

The results of this wide-spread dissemination plan can be measured in several ways. First, faculty and staff within FCCJ are knowledgeable about the purpose and results of this project. Additionally, other colleges have adapted this model as a way of creating a cooperative learning initiative at their own colleges. FCCJ has recently worked with Cuyahoga Community College in Cleveland, Valencia Community College in Orlando, and Guilford Technical Community College in North Carolina in order to adapt our model. We expect other colleges to seek similar information through the Southeastern Center.

Objective 6 To improve and increase students' teamwork skills, with a minimum of 20% of students participating in cooperative learning experiences during years 2 and 3 demonstrating improved teamwork skills.

Method

The methodology used to assess student's teamwork skills was emphasized in the second and third year of the grant.

In year two, 134 students enrolled in classes where cooperative learning techniques were being used responded to a Likert-scale question: "To what degree have *your* teamwork skills improved?"

During the third year a pre/post self report survey was given to both students in cooperative learning classrooms and their matching classes taught in non-cooperative settings (see

Appendix B). This method involved 154 students from six different disciplines. The statistical analysis used was a test of proportions to indicate whether the difference in proportions was statistically significant. Students responded to a Likert-scale question both at the beginning of the term and at the conclusion: "I have good teamwork skills."

Results

Year two. Student responses to the question: "To what degree have *your* teamwork skills improved?" were based on a response scale of 1 to 5 (1 indicating no improvement and 5 indicating high improvement). Sixty percent of the students responded with a rating of 4 or 5. This result exceeds the objective of 20% improved teamwork skills.

Year three. In the pre/post self report survey student responses to the question of improved teamwork skills were analyzed statistically. Students in cooperative learning environments showed a significant improvement in teamwork skills ($p < .05$).

Interpretation

The cooperative learning classroom provides an atmosphere for students that will improve their teamwork skills through structured activities designed to facilitate their effectiveness in working within groups. These teamwork skills are critical for success in the workplace.

Objective 7 To improve student success rate through cooperative learning experiences.

Method

The methodology used to measure the improvement of student success rates through cooperative learning experiences was conducted over the three years of the grant. A successful student is defined to be a student who earns a C or higher as a final course grade. Twenty faculty with a minimum of 80 hours of cooperative learning training were selected for the evaluation of this objective. The faculty were identified as high implementors of cooperative learning based upon the completion of a log of cooperative learning activities in their classrooms. At FCCJ the grade distribution report for all faculty is available from the registrar's office. The classes of twenty faculty members constituted both the control and treatment groups. After identifying the cooperative learning classes for each faculty, the same course and section were matched with the grade distributions from these same courses before the faculty received training in cooperative learning. Thus, the control group were those faculty with no prior training in cooperative learning and the treatment group were the same faculty after they had taken a minimum of 80 hours of training. The hypothesis being tested was that the proportion of successful students in cooperative learning classes was significantly higher than the proportion of successful students in non-cooperative learning classes.

Results

During the three year period of this study, 1,790 students taught in a cooperative learning environment were the treatment group for this objective while 1,933 students taught in non-

cooperative learning classes were the control group.

The results indicate that student success rates in cooperative learning classes were higher in computer science, criminal justice, and English and significantly higher in accounting, business systems, education, mathematics, and psychology courses.

Table 2

Percent of Successful Students in Cooperative vs Non-Cooperative Learning Classes

	Cooperative Learning		Non-Cooperative Learning		
Discipline	n	%	n	%	p-value
Accounting	224	65	332	56	.02*
Business Systems	88	78	70	60	.01*
Computer Science	23	87	24	67	.05
Criminal Justice	33	70	37	65	.33
Education	75	79	79	59	.00*
English	882	67	877	64	.05
Mathematics	192	62	208	50	.01*
Nursing	36	94	36	97	.28
Psychology	135	70	166	57	.01*
Science	102	70	104	82	.02*

Note. Successful students are defined as those who earned a C or higher.
n = number of students. % = percent of successful students.

Interpretation

One possibility for 5 of the 10 disciplines yielding significantly higher success rates might be attributed to the fact that courses like education and psychology are often traditionally taught by lecture methods. In addition, some faculty believe that students who have been passive in the culture of the traditional classroom feel free to communicate, participate and learn more in a cooperative learning environment. Future success rates will focus on the percentage of A and B final grades and those results will be analyzed in a similar manner as above.

Objective 8 To improve student retention rates through cooperative learning experiences.

Method

The methodology used to measure the improvement of student retention rates through cooperative learning experiences was conducted over the three years of the grant. The retention rate is defined as the percent of students who completed the course; i.e., remained in class for the entire term but may not have earned a grade of C or higher.

Twenty faculty with a minimum of 80 hours of cooperative learning training were selected for the evaluation of this objective. The faculty were identified as high implementors of cooperative learning based upon the completion of a log of cooperative learning activities in their classrooms. At FCCJ the grade distribution report for all faculty is available from the registrar's office. These twenty faculty members were both the control and treatment groups. After identifying the cooperative learning classes for each faculty, the same course and section were matched with the grade distributions from these same courses before the faculty received training in cooperative learning. Thus, the control groups were those faculty with no prior training in cooperative learning and the treatment groups were the same faculty after they had taken a minimum of 80 hours of training. The hypothesis being tested was that the retention rates of students in cooperative learning classes were significantly higher than the retention rates of students in non-cooperative learning classes.

Results

During the three year period of this study, 1,790 students taught in a cooperative learning environment were the treatment group for this objective while 1,933 students taught in non-cooperative learning classes were the control group.

Ten different disciplines were studied (see Table 3).

The results indicate that the student retention rates in cooperative learning classes were higher in accounting, English and psychology and significantly higher in business systems, computer science, education and mathematics courses.

Table 3
Percent of Students Retained in Cooperative vs. Non-Cooperative Learning Classes

	Cooperative Learning		Non-Cooperative Learning		
Discipline	n	%	n	%	p-value
Accounting	224	67	332	61	.08
Business Systems	88	80	70	66	.03*
Computer Science	23	91	24	71	.04*
Criminal Justice	33	74	37	76	.39
Education	75	79	79	59	.00*
English	882	68	877	67	.33
Mathematics	192	78	208	61	.00*
Nursing	36	94	36	97	.28
Psychology	135	71	166	69	.36
Science	102	74	104	86	.02*

Note. Retention of students indicates those who remained in the course for the entire term but who may not have earned a grade of C or higher. n = number of students. % = percent of students retained.

Interpretation

Although students in mathematics and education courses showed the most significant increase in retention rates, other classes also showed increases, some of which were significant.

Cooperative learning actively involves both students and faculty in the classroom and therefore contributes to student's retention rates in the cooperative learning classes.

Objective 9 To encourage and help students to develop a positive attitude toward the acceptance of diversified solutions to course work.

Method

The methodology used to measure whether students developed a positive attitude toward the acceptance of diversified solutions to course work was conducted over year two and year three

of the grant.

Year two. At the end of year two, 402 students enrolled in classes where cooperative learning techniques were being used responded to this question: "Am I aware of other perspectives, other ways of doing things?"

Year three. During the third year of the grant a pre/post self-report survey was given to both students in cooperative learning classrooms and their matching classes taught in non-cooperative settings (see Appendix B). This method involved 154 students from six different disciplines. The statistical analysis used was a test of proportions to indicate whether the difference in proportions was statistically significant. Students responded to a Likert-scale question both at the beginning of the term and at the end: "I am aware of other perspectives, and other ways of doing things."

Results

Year two. Forty-five percent of the students indicated an increase in their awareness of other student's perspectives.

Year three. In the pre/post self-report survey student responses to the question of awareness of other perspectives were analyzed statistically. Students in cooperative learning classes showed a more positive attitude toward other perspectives ($p < .05$).

Interpretation

There are two possible reasons for the above results.

1. The teacher trained in cooperative learning teaches students the skills needed to be receptive to alternative perspectives.

2. Students' responses to the survey question indicate that they have acquired these skills.

Objective 10 To increase student satisfaction with courses which include cooperative learning techniques.

Method

The methodology used to measure student satisfaction with courses which included cooperative learning techniques was conducted over the three years of the grant.

Year one. A student self-report, open-ended survey was distributed at the end of the winter term to 650 students who were in cooperative learning classrooms. Students responded to this question: "Did you come away from this class with a sense of satisfaction about what you learned

and experienced?"

Year two. The self-report survey administered during the second year was given to 134 students who responded to a Likert-scale question: "To what degree did the cooperative groups in this class give you a greater sense of satisfaction about your learning experiences, aside from grades?"

Year three. A student exit survey was given to 379 students in 22 cooperative learning classes. Students completed the following statement: "If I have a choice between taking a class that uses mostly cooperative groups or mostly lecture I would prefer _____."

Results

Year one. Seventy-eight percent of the 650 students surveyed indicated that they came away from their cooperative learning class with a sense of satisfaction about what they learned and experienced.

Year two. On a scale of 1 to 5 (1 indicating little satisfaction and 5 indicating very satisfied), 52% of the students in cooperative learning classes responded with a rating of 4 or 5.

Year three. Of the 379 students who completed the student exit survey, 64% preferred taking classes that used mostly cooperative groups.

Interpretation

Student responses totaled over the three years show that 71% of the students experienced a greater sense of satisfaction about what they had learned in a cooperative learning setting.

Objective 11 To improve and increase the use of students' critical thinking skills.

Method

The methodology used to measure the improvement of students' critical thinking skills was developed over the three years of the grant. During the first year, instruments assessing critical thinking skills were evaluated. The Cornell Critical Thinking Test, form X, was selected and was used as the pre/post instrument in year two when a pilot study was conducted. Year two included two different experimental designs.

The first analysis was based on the pre/post test results from 119 students enrolled in five different disciplines using cooperative learning techniques.

The second study used a non-equivalent control group design; this analysis involved 142 students, with comparable numbers in control and experimental groups. The experimental groups consisted of students in cooperative learning classes and the control groups consisted of students

being taught by instructors who were not trained in these techniques. These analyses were conducted with students in freshman English composition courses and introductory statistics courses. This method proved to be the most effective design and was used thereafter.

In the final study, during year three, 10 faculty with a minimum of 80 hours of cooperative learning training along with 10 faculty with no cooperative learning training participated in this study. The data was analyzed through a t-test calculation on the mean of the paired differences between the various matched samples. The student participants were enrolled in the following courses: college algebra, college prep English, English composition, reading, and statistics.

Results

Students in cooperative learning classes experienced greater improvement in critical thinking skills than did their counterparts in more traditional classrooms as evidenced in English composition, college prep English, and reading classes. The results from these classes indicated statistically significant differences.

Table 4
Cornell Critical Thinking Test Results Comparing Students in Cooperative Learning vs Non-cooperative Learning Classes

	Cooperative Learning			Non-Cooperative Learning		
Course	n	μ	p-value	n	μ	p-value
College Algebra	36	.10	.47	42	-2.25	.87
College Prep English	21	6.90	.02*	22	5.48	.09
English Composition	58	3.84	.00*	26	-4.96	.92
Reading	14	7.79	.01*	18	-1.75	.82
Statistics	28	.48	.39	30	2.45	.89

Note. The Cornell Critical Thinking Test, form X was used for this analysis. n = number of students. μ = mean differences between pre-/post-test scores; this value is negative when the pretest score is higher than the post-test score.

Interpretation

Students who were taught in cooperative learning classes in English composition and reading courses significantly improved their critical thinking skills, while a comparable group of students in mathematics courses did not show a significant increase.

Summary and Conclusions

The overall goals of the project were to improve student success and retention, to increase a sense of community among faculty and students and to promote active teaching and learning through cooperative learning. As a result of this project, the success level of our students was significantly increased. Retention of students in the classroom was increased, critical thinking skills were significantly increased and a sense of community was developed between and among students and faculty. Faculty across several disciplines have participated in gathering data to support the goals and objectives of the project. Preliminary survey data indicates that 71% of the students experienced a greater sense of satisfaction about what they had learned in a cooperative learning setting. Eighty-seven percent of these students indicated that they were active participants in class. In addition, over 1,700 students from 10 different disciplines participated in a study concerning success and retention rates. Class comparisons between cooperative learning and control groups indicated that 50% of the cooperative learning classes showed a statistically significant increase in success rate. Class comparisons between cooperative learning and control groups indicated that 40% of the cooperative learning classes showed a statistically significant increase in retention rate. A student exit survey indicated that students preferred cooperative learning over non cooperative learning. Indeed, the Cooperative Learning Program at FCCJ has proven to be a most cost-effective way of reforming the college classroom and significantly improving retention and student success. It is evident that other institutions of higher learning should take serious steps to incorporate cooperative learning strategies in their classrooms.

Some of the insights gained after an intensive three-year gestation period include the following points:

<u>The Concept</u>

1. A major paradigm shift from traditional teaching methods (like lecture) to more innovative methods like cooperative learning requires significantly more effort to acquire and more time to implement than was originally anticipated.

2. The simplicity inherent in the basic elements of cooperative learning masks the complex series of changes that must occur for the teacher to feel at ease using cooperative learning in the classroom.

3. A project that involves such a radical and comprehensive change in the culture of the college classroom requires the unequivocal support of the administration and the teaching faculty from the onset.

4. Overall, a successful project requires an organized workplan and timetable, intensive training over time, support within the institution, and willing, flexible, and credible faculty leaders.

The Training

1. An intensive plan for training and followup activities is absolutely essential for ensuring the quality of cooperative learning instruction in the classroom. According to our research, the number of hours in training is directly proportional to the degree of classroom implementation. Without a high degree of implementation, it is unlikely that cooperative learning training will have a significant impact on student performance in the classroom.

2. Because of the complexity of cooperative learning concepts, training in cooperative learning techniques must be intensive (such as sessions of 12 hours over a 1½ day period) and sustained (such as 3 separate sessions during the academic year) augmented by followup sessions between major training workshops.

3. Beyond training and followup, it is critical to provide assistance to faculty who face barriers to implementing cooperative learning. We are currently developing strategies like co-planning sessions between trained faculty to meet such needs.

4. The logistics of planning successful training cycles such as this project at FCCJ entails an enormous amount of planning and timely support by college staff. It also requires versatility on the part of the grant team ranging from the ability to frame, write, and execute proposals and workplans to the willingness to participate in the more mundane clerical and housekeeping aspects of hosting training sessions.

Project Leadership

1. In a project with the scale and intensity of this one, it is helpful to have a division of labor among the directors/co-directors, in order to manage the wide-ranging tasks of overseeing the project, planning the logistics of training faculty and collating and analyzing data.
2. Cooperative learning requires that leaders model the concepts taught rather than to simply talk about them. Thus, it is recommended that the colleges that initiate cooperative learning projects ensure that the leadership are practitioners of what they teach. Leaders of cooperative learning training must be teaching in the classroom in order to be credible to their colleagues.

Vision for Future

1. One of the most interesting, yet unexpected, results of this project is to note how a project created by faculty and rooted in the classroom has permeated

the entire college community. Cooperative learning is not just a passing fad at FCCJ; it is both an integral part of classroom delivery and college committee work. Cooperative learning strategies are used in proposal writing and committee task forces working on issues such as faculty evaluation, performance standards, continuing contract, among others.

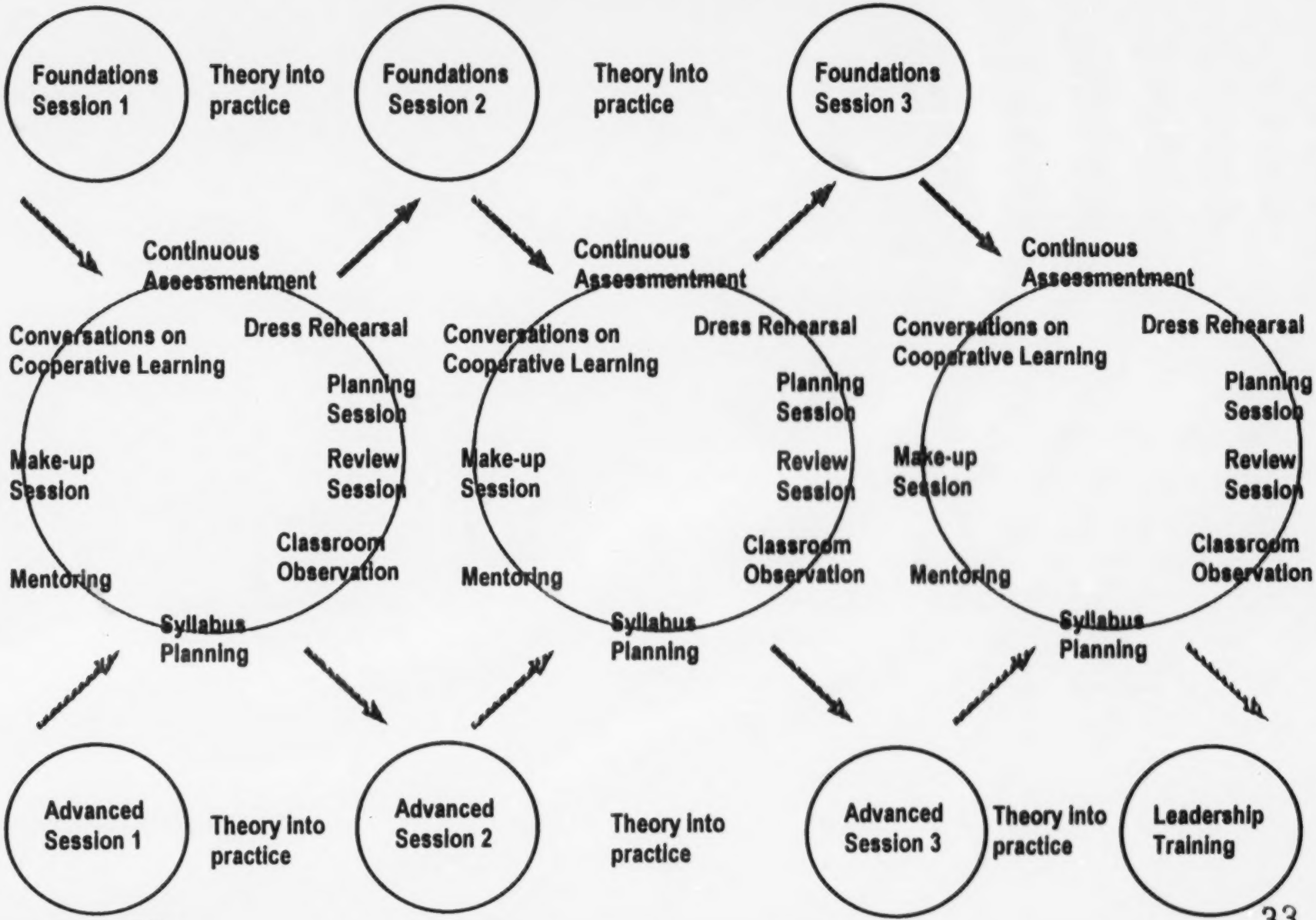
2. Based on the results of this project, it is recommended that further research explore the use of cooperative learning in the college classroom, especially using large samples of faculty and students. Furthermore, while this project adds to the body of research that demonstrates that cooperative learning works in the college classroom, more specific studies should be conducted in order to isolate the specific factors that promote such results.

APPENDICES

Appendix A

FCCJ Faculty Development Model

FCCJ Faculty Development Model



Appendix B

Student Survey, Form A and B

STUDENT SURVEY

TERM 961 FORM A

COURSE _____ SECTION _____

SOCIAL SECURITY NUMBER _____

MALE _____ FEMALE _____ RACE _____

AGE: ____ 17 - 22 ____ 23 - 28 ____ 29 - 34
____ 35 - 40 ____ 40+

Please indicate how you feel about the following statements.
Use the scale below to circle the appropriate number.

1 = Strongly agree
2 = Agree
3 = No Opinion
4 = Disagree
5 = Strongly Disagree

1.	Most of my college courses taken at FCCJ have been beneficial.	1	2	3	4	5
2.	I feel apprehensive about this course.	1	2	3	4	5
3.	When doing group work in class, I encourage other students to express their opinions.	1	2	3	4	5
4.	In a group setting, I take charge.	1	2	3	4	5
5.	Whenever I can, I avoid working in classroom groups.	1	2	3	4	5
6.	I actively participate in class.	1	2	3	4	5
7.	I tend to be silent in class, and not speak my mind.	1	2	3	4	5
8.	I am aware of other perspectives, and other ways of doing things.	1	2	3	4	5
9.	I like to work in classroom groups.	1	2	3	4	5
10.	I have good teamwork skills.	1	2	3	4	5
11.	I tend to talk too much.	1	2	3	4	5
12.	Outside of the classroom, I have contacted fellow students, socially and/or academically.	1	2	3	4	5

STUDENT SURVEY

TERM 961 FORM B

COURSE _____ SECTION _____

SOCIAL SECURITY NUMBER _____
(for matching purposes only)

Please indicate how you feel about the following statements.
Use the scale below to circle the appropriate number.

1 = Strongly Agree
2 = Agree
3 = No Opinion
4 = Disagree
5 = Strongly Disagree

1. My apprehension about this course has diminished.	1 2 3 4 5
2. When doing group work in class, I encourage other students to express their opinions.	1 2 3 4 5
3. In a group setting, I take charge.	1 2 3 4 5
4. Whenever I can, I avoid working in classroom groups.	1 2 3 4 5
5. I am aware of other perspectives, and other ways of doing things.	1 2 3 4 5
6. I like to work in classroom groups.	1 2 3 4 5
7. I have good teamwork skills.	1 2 3 4 5
8. Outside of the classroom, I have contacted fellow students, socially and/or academically.	1 2 3 4 5

Appendix C

Proposal for
The Southeastern Center for Cooperative Learning

Proposal for

The Southeastern Center for Cooperative Learning
October 16, 1995

Introduction

Many classrooms at Florida Community College have a new look, a new sound, and a new attitude about teaching and learning. Students in many classrooms at FCCJ are experiencing higher achievement, higher retention rates and greater satisfaction with their classes. Many faculty at FCCJ are engaging in conversations about teaching and learning and are finding a new energy and a greater sense of satisfaction with their teaching.

Why? Cooperative Learning has changed the college classrooms at Florida Community College into active/interactive centers of learning, and cooperative learning has provided faculty with the long-needed tools to structure an active learning environment.

Problem Statement

There is a national concern with teaching/learning issues and the impact they have on students and faculty. Numerous reports and research articles indicate that students should be active, not passive, learners. College faculty are the critical players in the effort toward shifting classroom instruction from passive learning strategies such as traditional lecture and rote learning to using more active learning strategies, specifically cooperative learning. Several national conferences in 1994/95 have focused on the use of cooperative learning strategies in higher education. In addition, several states have mandated the use of cooperative learning/active learning strategies in statewide educational reform. A key factor in faculty creating the paradigm shift in their college classrooms is through intensive training and practice in cooperative learning strategies.

Locally, Florida Community College, like many community colleges around the country, has a diverse multi-ethnic, nontraditional commuter student population, a senior faculty, a high ratio of adjunct faculty to full-time faculty and limited resources. There is a concern about the success of students in the classroom, their success in the workplace and their success in the upper level institutions to which they transfer. This situation poses a challenge to colleges to find innovative, cost effective solutions that will enable a significant number of faculty to become proficient in teaching/learning strategies that will improve learning environments and that will improve learning outcomes.

FIPSE Grant Description

In 1993 Florida Community College was awarded a three-year grant from the U.S. Department of Education's Fund for the Improvement of Postsecondary Education. The grant was one of 53 funded from a competition of over 1900 grant proposals. The grant, now in its third year focuses on change in the classroom by supporting three major objectives.

1. Intensive training for faculty in cooperative learning theories and strategies.
2. Assessing the impact of cooperative learning in the classroom.
3. Establishing the Southeastern Center for Cooperative Learning at Florida Community College in order to provide on-going training, research and dissemination of expertise to other institutions.

Proposal

This proposal seeks to establish the Southeastern Center for Cooperative Learning at Florida Community College as outlined in the 1993-96 FIPSE Grant.

Rationale

The outcomes of the Cooperative Learning project on the FCCJ classrooms have exceeded expectations. Highlights of evaluation objectives are listed below. A complete evaluation report is attached to this proposal (Attachment A)

1. 32% of the full-time Faculty have received a minimum of 40 hours of training (voluntary enrollment) An additional 60 faculty have enrolled in the 1995-96 seminars.

2. More than 1,200 students over both years have been actively involved with the data collection process.

3. Post-survey information indicates that faculty who complete Advanced Training have high implementation levels.

4. Statistical Analyses indicated that Student Retention and Academic Success Rates were significantly higher in Cooperative Learning Classes.

5. Students in Cooperative Learning Classes showed a significant increase in Critical Thinking Skills when compared with a non-equivalent control group.

6. 52% of Students surveyed at FCCJ indicated a 4 o 5 level of satisfaction based on a scale of 1 to 5.

In addition, FIPSE seeks to provide seed money to innovative projects that will be institutionalized. Future grants will look to the successful institutionalization of Cooperative Learning at FCCJ.

Description of the Southeastern Center for Cooperative Learning

The Southeastern Center for Cooperative Learning will be established to provide an on-going effort to promote, research, explore and disseminate the practices, theories and strategies of cooperative learning within FCCJ and to other institutions. The Center for operations and resources will be located at FCCJ South Campus. Training seminars will be held at a variety of locations. The Southeastern Center for Cooperative Learning will work to provide a "model" center to be adapted to other educational institutions.

Philosophy:

"The biggest and most long-lasting reforms of undergraduate education will come when individual faculty or small groups of instructors adopt the view of themselves as reformers within their immediate sphere of influence, the classes they teach everyday."

K. Patricia Cross

The philosophy of the Southeastern Center for Cooperative Learning is to empower faculty members with the strategies, research, confidence and collegial support necessary for them to be creators of cooperative learning environments and "reformers" in their classrooms.

Center Leadership

The center will be managed by a director and two associate directors. The director will oversee the planning, budgeting and coordinating of activities within and outside FCCJ. The director will network with other cooperative learning efforts across the country. The associate director for research will design and implement an evaluation plan including longitudinal studies and studies with colleges in the Advisory Council. The associate director for training will coordinate all training, follow-up, and communications with participants in coordination with the Advisory Council. All requests for Cooperative Learning training both within and outside of FCCJ will be referred to the director, and an equitable method of selecting trainers will be employed.

Advisory Council

The Southeastern Center will create an advisory council/consortium selected from FCCJ faculty certified in leadership and from faculty from other institutions trained with us in Cooperative Learning techniques. The purpose of this team will be to create a collegial network and work cooperatively to promote and improve the state of cooperative learning in higher education.

FCCJ Leadership Team

FCCJ faculty with Leadership certification and appropriate years of experience with successful implementation of Cooperative Learning in the classroom will team teach cooperative learning training seminars and advise in training decision-making. The Leadership Team will operate as a "think tank" in all aspects of cooperative learning within and outside the college. Faculty on the Leadership Team agree to abide by the policies and guidelines of the Southeastern Center and agree to take an active role in promoting and supporting Cooperative Learning.

Support

A full-time senior clerk/senior secretary will provide office assistance, prepare presentation materials, and assist the directors in the coordination of all training and administration activities, as well as assist in properly addressing college policies.

Space

An adequate office space complete with telephone and computer lines and resources vital to the effective management of the Southeastern Center.

Training Seminars

(Training will be team-taught based on the Johnson's model of Cooperative Learning)

Cooperative Learning Awareness Training (2-3 hours)

Foundations of Cooperative Learning (45 hours) (FCCJ-3 credit class)

Advanced Concepts of Cooperative Learning (45 hours) FCCJ-3 credit class)

Creative Conflict in Cooperative Learning (20-45 hours)

Leading the Cooperative School (For Educational Leaders/Administrators) (2-20 hours)

Conference Presentations (1- 2 hours)

Seminars adapted for special needs

Graduate credit courses will be arranged.

Trainees

Tenured FCCJ faculty
Non-tenured FCCJ faculty
FCCJ staff
Adjunct faculty
Faculty from local school districts
Faculty from other educational institutions
Businesses and community organizations

Fees

Trainees outside of FCCJ will be charged a fee consistent with the type of training. Fee, schedules and other such policies will be decided by the Directors and/or the FCCJ Leadership Team.

Equipment

The office will need general office equipment; desk, files, chairs, shelves, storage. Also needed is a computer/printer system appropriate for general office work and for creating presentation materials.

Other Activities

Research:

The Associate Director for Research Evaluation will be responsible for measuring the impact of cooperative learning through longitudinal studies conducted within FCCJ and with other institutions. The research plan will include, but is not limited to, measuring the cooperative learning impact on students in "high risk" courses, on student achievement gains, and on reducing student anxiety. A research design will be developed annually and results of the analyses will be disseminated both within and outside of FCCJ.

Mentoring/Follow-Up:

The Southeastern Center will provide mentoring/observation and follow-up activities as a means for supporting, refining and reviewing Cooperative Learning techniques (see Attachment B - Training Model) The purpose of the follow-up activities is to create an on-going conversation regarding the continuous improvement of cooperative learning in the classroom.

Dissemination:

The Southeastern Center will continue to disseminate information at conferences. Over the past 2 years presentations have been made at over 14 conferences. We will also provide informational articles for journals, bulletins, newsletters, etc. FIPSE seeks to support projects that can become models for post-secondary education. The Cooperative Learning Program is already recognized as a national model. It is incumbent on this college to continuously improve the model and to share our design with other institutions. The Center will also work to network with emerging leaders in cooperative/collaborative learning such as a possible AAHE teaching initiative.

Student Impact

120 FCCJ faculty completers (40 hours) teaching an average of 4 classes of 25 students per semester using Cooperative Learning Techniques would impact over 12,000 FCCJ students per semester. Additional faculty trained each year would add considerably to this impact.

Summary

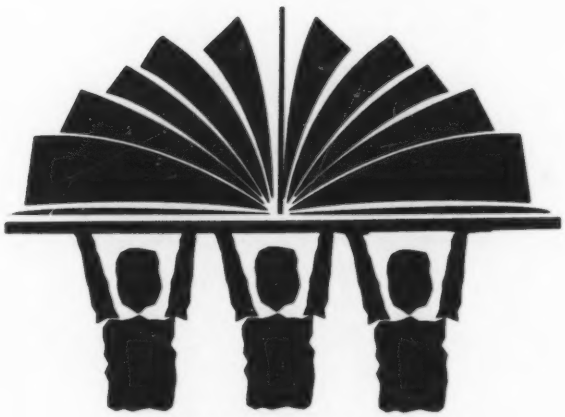
The Southeastern Center for Cooperative Learning is a proven method for changing the culture of the college classroom. It works - a dozen reasons about how?

1. Cooperative Learning improves student achievement.*
2. Cooperative Learning improves student retention.*
3. Cooperative Learning increases critical thinking skills.*
4. Cooperative Learning increases student satisfaction.*
5. Cooperative Learning increases student/student interaction.*
6. Cooperative Learning increases student/faculty interaction.
7. Cooperative Learning revitalizes faculty attitudes.
8. Cooperative Learning provides faculty with a proven system for creating active/interactive classrooms.
9. Cooperative Learning encourages collegiality among faculty.
10. Cooperative Learning promotes energy and enthusiasm in the classroom.
11. Cooperative Learning builds a sense of community between and among campuses and disciplines.
12. Cooperative Learning prepares students for the new millennium where team work and interdependence will prevail.

(* Statistically significant)

Appendix D

Brochure for
Southeastern Center for Cooperative Learning



SOUTHEASTERN
CENTER FOR
COOPERATIVE
LEARNING

Give your
class a new look,
a new sound and
a new attitude
about teaching
and learning.

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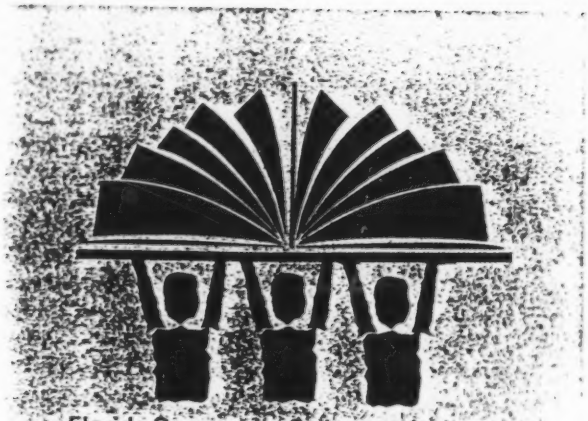

Florida Community College at Jacksonville, home to the Southeastern Center for Cooperative Learning, is a multi-campus institution which serves 94,000 students in Northeast Florida each year. The area's largest city — Jacksonville — is a growing, coastal city of more than 700,000 people.

As a leader in innovation in teaching and learning, FCCJ has long encouraged its faculty to use cooperative learning strategies in the classroom. In fact, some instructors have more than five years of experience with this method of teaching. The College's research of cooperative learning dates back to 1993 when it received a three-year grant from the U.S. Department of Education to study its use in college classrooms. As a result of the study's findings, the College has significantly enhanced its own use of cooperative learning.

Today, FCCJ faculty using this method teach various disciplines, from liberal arts to the sciences to vocational fields of study. FCCJ instructors who have voluntarily completed training in cooperative learning now number more than 200. A select cadre of faculty have been qualified to provide training to other instructors around the nation via the Southeastern Center for Cooperative Learning.

Florida Community College at Jacksonville

FCCJ is an equal access/equal opportunity/ affirmative action college.

WHAT STUDENTS ARE SAYING ...

"Working in cooperative groups is fun. You get to know the people you are working with; you have three heads to think with rather than one; your chances for success are increased."

"When we discuss in groups, the information tends to stay in my memory longer than by just reading out of a book."

"I like working in groups because I can get different opinions from my peers."

"For me, the value of working in groups is that your classmates can help you understand the assignment ... "

"When my writing is critiqued in groups, it is easier to see my mistakes and get other ideas that I may never have thought of on my own."

"The FCCJ model is the most carefully planned, systematic, successful implementation of cooperative learning anywhere in the nation."

— Dr. Roger Johnson
University of Minnesota

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Cooperative learning is changing college classrooms into active/interactive centers of learning ...

where students find higher achievement, higher retention and greater satisfaction in their learning ...

where faculty find new energy and greater satisfaction with their teaching.

Help your class find a new look, new sound and new attitude about teaching and learning through the Southeastern Center for Cooperative Learning.

COOPERATIVE LEARNING WORKS!

For students ...

- Improves achievement
- Improves retention
- Increases critical thinking skills
- Increases interaction with students and faculty
- Teaches teamwork and interdependence
- Promotes enthusiasm for learning

For faculty ...

- Helps create active/ interactive classrooms
- Revitalizes teaching
- Encourages collegiality among faculty
- Builds community among campuses and disciplines

WHAT IS COOPERATIVE LEARNING?

Cooperative learning is instruction that involves people working in teams to accomplish a common goal, under conditions that involve both positive interdependence (all members must cooperate to complete a task) and individual and group accountability (each member is accountable for the complete final outcome).

WHY USE COOPERATIVE LEARNING ENVIRONMENTS IN HIGHER EDUCATION?

Numerous educational reports and research studies indicate that students should be active — not passive — learners. College faculty must be the critical players in shifting classroom instruction from passive learning strategies (such as traditional lecture and rote learning) to more active learning strategies, specifically cooperative learning.

Results from a three-year research study (funded by FIPSE) conducted at FCCJ found:

- student retention and academic success rates were significantly higher in cooperative learning classes based on statistical analyses.

- students in cooperative learning classes showed a significant increase in critical thinking skills when compared with non-equivalent control groups.

- more than half of students surveyed in cooperative learning classes indicated high levels of satisfaction.

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WHERE CAN I LEARN MORE ABOUT COOPERATIVE LEARNING?

The Southeastern Center for Cooperative Learning, located at Florida Community College at Jacksonville, promotes, researches, explores and disseminates the practices, theories and strategies of cooperative learning. It is a model center that may be adapted to other educational institutions.

Multiple levels of training are available, offered both at FCCJ and at your institution.

- **Awareness Training** (3-4 hours)
  An introduction to the basic concepts of cooperative learning.
- **Foundations of CL** (30-40 hours)
  Provides a solid foundation for implementation in the classroom.
- **Advanced Concepts in CL** (30-40 hours)
  Provides advanced strategies for structuring cooperative groups.

Also available are the following.

- **Customized training workshops** (varying hours)
- **Assistance in program evaluation**

Faculty are welcome to visit FCCJ and observe cooperative learning in action for a day, for one training session or during a long-term sabbatical.

FOR MORE INFORMATION...

Susan Hill, Program Director
(904) 646-2320 • Fax (904) 646-2312
email: shill@fccj.cc.fl.us

Southeastern Center for Cooperative Learning
The Cooperative Learning Program
Florida Community College at Jacksonville
11901 Beach Blvd. • Jacksonville, FL 32246

SUSAN S HILL
SOUTHEASTERN CENTER FOR COOPERATIVE LEARNING
FLORIDA COMMUNITY COLLEGE AT JACKSONVILLE
11901 BEACH BLVD
JACKSONVILLE FL 32246

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Appendix E

Dissemination
Conference and Workshop Presentations

DISSEMINATION
Conference and Workshop Presentations

Spring 1994

Susan Hill, Alice Hadwin, Marlene Kovaly
"Cooperative Learning: A Catalyst for Change in the College Classroom (FIPSE Grant)" Presented at the Fifth National Conference on College Teaching and Learning, Jacksonville, FL, April 1994.

Susan Hill, Alice Hadwin
"Cooperative Learning - Advanced Concepts" Presented at the Fifth National Conference on College Teaching and Learning, Jacksonville, FL, April 1994.

Marlene Kovaly, Mosetta Cohen, Jeff Bertsch
"An Introduction to Cooperative Learning" Presented at the Fifth National Conference on College Teaching and Learning, Jacksonville, FL, April 1994.

Elizabeth Griffey, Fred T. Hofstetter
"Cooperative Learning and Technology" Presented at the Fifth National Conference on College Teaching and Learning, Jacksonville, FL, April 1994.

Marlene Kovaly, Mosetta Cohen
"Introduction to Cooperative Learning Concepts" Presented at Jacksonville University, Jacksonville, FL, April 1994.

Summer 1994

Susan Hill
"Cooperative Learning: A Catalyst for Change in the College Classroom" Presented at NCTLA National Conference on Collaborative Learning, Penn State University, State College, PA, June 1994.

Fall 1994

Susan Hill, Peg Greene
"Introduction to Cooperative Learning in the College Classroom" Presented at the Annual Teaching/Learning Conference, Ashland, KY, October 1994.

Elizabeth Griffey, Fred T. Hofstetter
"Cooperative Learning and Technology" Presented at EduCom, San Antonio, TX, October, 1994.

Winter 1995

Susan Hill, Elizabeth Griffey, Alice Hadwin, Carolyn Phanstiel, Marlene Kovaly
"Introduction to Cooperative Learning" Presented at Wolfson High School Professional Development Seminar, Jacksonville, FL, January 1995.

Susan Hill, Susan Slavicz
"Introduction to Cooperative Learning in the College English Classroom" Presented at the 1995 Southeastern Conference on English in the Two-Year College, Jacksonville, FL, February, 1995.

Susan Hill, Alice Hadwin, Marlene Kovaly
"Cooperative Learning: A Catalyst for Change in the College Classroom" Presented at the 1995 Inaugural Futures Assembly, Bellwether Award, Orlando, FL, February, 1995.

Marlene Kovaly, Jeri Rogers
"Introduction to Cooperative Learning in the College Classroom" Presented at the Regional Conference of Teachers Teaching with Technology, Jacksonville, FL. March, 1995.

Marlene Kovaly, Jeri Rogers
"Cooperative Learning: A Catalyst for Change in the College Classroom" Presented at the Eighth Annual ERCBEC: Total Quality Education Conference, Wrightsville Beach, NC, March, 1995.

Alice Hadwin, Carolyn Phanstiel
"Giving Interaction and More Meaning Through the Simplicity of Effective Cooperative Learning" Cincinnati, OH, March, 1995.

Spring 1995

Susan Hill, Susan Slavicz
"Cooperative Learning Awareness Workshop" Presented at the Sixth National Conference on College Teaching and Learning, Jacksonville, FL, April, 1995.

Jean Martin, Judy Burnett
"Cooperative Classroom Management" Presented at the Sixth National Conference on College Teaching and Learning, Jacksonville, FL, April, 1995.

Ula Moody, Susan Hill, Mark Howard
"Cooperative Teaching for the Cooperative College Classroom: A Teaching Triad" Presented at the Sixth National Conference on College Teaching and Learning, Jacksonville, FL, April, 1995.

Susan Hill, Marlene Kovaly
"Introduction to Cooperative Learning" Presented at Andrew Jackson High School, Jacksonville, FL, May 1995.

Susan Hill, Marlene Kovaly
"Introduction to Cooperative Learning in the College Classroom" Presented at Darton College, Albany, GA, May, 1995.

Summer 1995

Susan Hill
"A Catalyst for Continuous Improvement in the Classroom" Presented at the AAHE Conference . Boston, MA, June, 1996.

Susan Hill, Charlotte Minter
"Teaching Effectiveness: Changing the College Classroom Through Cooperative Learning Strategies" Presented at the Institutional Effectiveness and Student Success in the Community College, Community College Consortium, Tacoma, WA, June, 1995.

Susan Hill, Mark Howard
"Cooperative Learning: Continuous Quality Improvement for the College Classroom" Presented at the CQIN Summer Institute, Atlanta, GA, August, 1995.

Winter/Spring 1996

Susan Hill, Susan Slavicz
"Cooperative Learning Strategies for the College English Classroom" Presented at the 1996 TYCA-Southeast Conference, Atlanta, GA, January 1996.

Susan Hill, Marlene Kovaly, Marian Beaman
"The Results Are In: Why Colleges Should Explore Cooperative Learning" Presented at the Seventh National Conference on College Teaching and Learning, Jacksonville, FL, March, 1996.

Susan Hill, Marlene Kovaly
"Promoting Continuous Quality Improvement Through Cooperative Learning" Presented at the Ninth Annual ERCBEC Conference, Myrtle Beach, SC, March, 1996

Marlene Kovaly, Cora S. West
"The Effects of Cooperative Learning on Faculty and Students" Presented at the Eighteenth Annual International Conference on Teaching and Leadership Excellence, Austin, TX, May, 1996.

Susan Hill, Marlene Kovaly
"What Works! How Cooperative Learning Environments Improve Teaching and Learning" Presented at the 11th AAHE Conference on Assessment & Quality, Washington, D.C., June, 1996.

Peg Greene, Susan Slavicz
"Cooperative Learning - Innovative Approaches" Presented at CQIN 96 3rd Annual Summer Institute Camp Discovery, Ypsilanti, MI, August, 1996

Fall 1996

Susan Hill, Marian Beaman
"Cooperative Learning: A Catalyst For Changing College Classrooms Into Active Learning Environments" Presented at the 2nd Annual Lilly Conference on College Teaching and Learning, Durham, NH, September, 1996.

Susan Hill, Marlene Kovaly, Jean Martin
"Cooperative Learning: A Catalyst for Change" Presented at Valencia Community College, Orlando, FL, September, 1996.

Elizabeth Griffey, Margaret Greene, Judy Burnett
"Introduction to Cooperative Learning" Presented at Mandarin High School Professional Development Seminar, Jacksonville, FL, September, 1996.

Appendix F

Information for FIPSE

Information for FIPSE

The assistance from FIPSE was most supportive. Our program officer was clear about requirements and very supportive as the project progressed. It was particularly helpful and encouraging for us to have Chip experience the cooperative learning process during his site visit. More than one site visit would have been even better. The support and recommendations from Dora Marcus helped us refine our evaluation components. This along with the decision to publish yearly evaluation reports created a smooth transition to a well-defined evaluation as outlined in the final report. In addition, the yearly "Director's meetings" were invaluable as a method for networking with other grantees and FIPSE staff. What else could be helpful? If anything, sample continuation proposals and a sample final report would help in creating more effective reports.

Generally, the findings that are expressed in the summary and conclusion section of the final report are important to consider in regards to future proposals. In review, some key concepts include the point that intensive training is critical in order to change the culture of the classroom from passive to active. Although 40 hours is not a magic number, it requires 30-40 hours to develop the skills and confidence to conceptually change teaching strategies from traditional lecture to cooperative. In addition, considerable follow-up training and collegial support should be built into faculty development models seeking to change teaching/learning environments. This is required in order that faculty continue to refine their skills and implement change to a degree that has a measurable impact on student learning. Again, short-term 8-12 hour sessions on active teaching strategies are unlikely to bring about long-lasting change in college classrooms. It is recommended that future projects relating to cooperative learning concepts accommodate this information in their models for faculty development.

Appendix G

Robert J. Drummond, External Evaluator

Summative Evaluation Report
Cooperative Learning: A Catalyst for Change in the College Classroom

To: Susan S. Hill, Director FIPSI Grant
From: Robert J. Drummond, External Evaluator
Re: Summative Evaluation Report: Cooperative Learning: A Catalyst in the College Classroom
Date: October 27, 1996

Overview

One of the major objectives of the FIPSI Grant was to improve the classroom instructional skills of faculty members through training in cooperative learning techniques. The results were to be demonstrated by improved student achievement, improved student retention, positive attitudes toward diversified solutions to course work, increased self-esteem, increased course satisfaction, improved critical thinking skills, and increased student teamwork. The results of the project were to be disseminated to the educational community. The end goal of the project was to establish the Southeastern Center for Cooperative Learning.

Sources of Information

Interviews with participants
Interviews with project staff and the Johnsons
Observations of the training sessions
Observations of classes taught by participants
Review of the evaluation reports
Review of project documents
Review of publications of the project
Participant observer of foundation and advanced training sessions

Training

During the three years of the grant, training took place at different levels. There were three levels: foundations, advanced, and leadership. In the third year a cadre of FCCJ faculty who had received the three levels of training instructed the foundations seminars. The foundations and advanced seminars required 40 hours of training each. Approximately a quarter of the full time faculty of FCCJ completed training. Participation was, however, not just limited to FCCJ faculty. Some participants were from other community colleges, and local universities. The evaluations of the training at each level were positive. The cadre of FCCJ trainers were well received by their peers.

Evaluation

Extensive evaluation efforts were conducted over the three years of the project targeting each objective. A variety of methodology and research design was utilized. Grades and success rates were studied of cooperative learning classes and control group classes. The degree of implementation, student satisfaction with cooperative learning, critical thinking, and group dynamics issues were also studied. Data from 1993 to 1996 indicate significant retention rates of

students who were in classes utilizing cooperative learning. In comparing the retention rates of students exposed to cooperative learning strategies versus those who are not, significant differences were found in favor of Cooperative learning in mathematics, science, business systems, education, and computer science classes. Success rates of students making a C or higher grade was significantly higher in mathematics, accounting, science, education, psychology, and business system classes utilizing cooperative learning.

Conclusions

As an ethnographic evaluator, the key conclusions from my observations, review of project documents, project evaluation data and interviews with key informants are as follows:

1. The faculty participating in the grant were genuinely interested in learning about cooperative learning and improving their repertory of teaching techniques.

2. Not all accepted the phases of the Johnson and Johnson model or were successful with them but adapted some dimensions in their teaching that worked well for them.

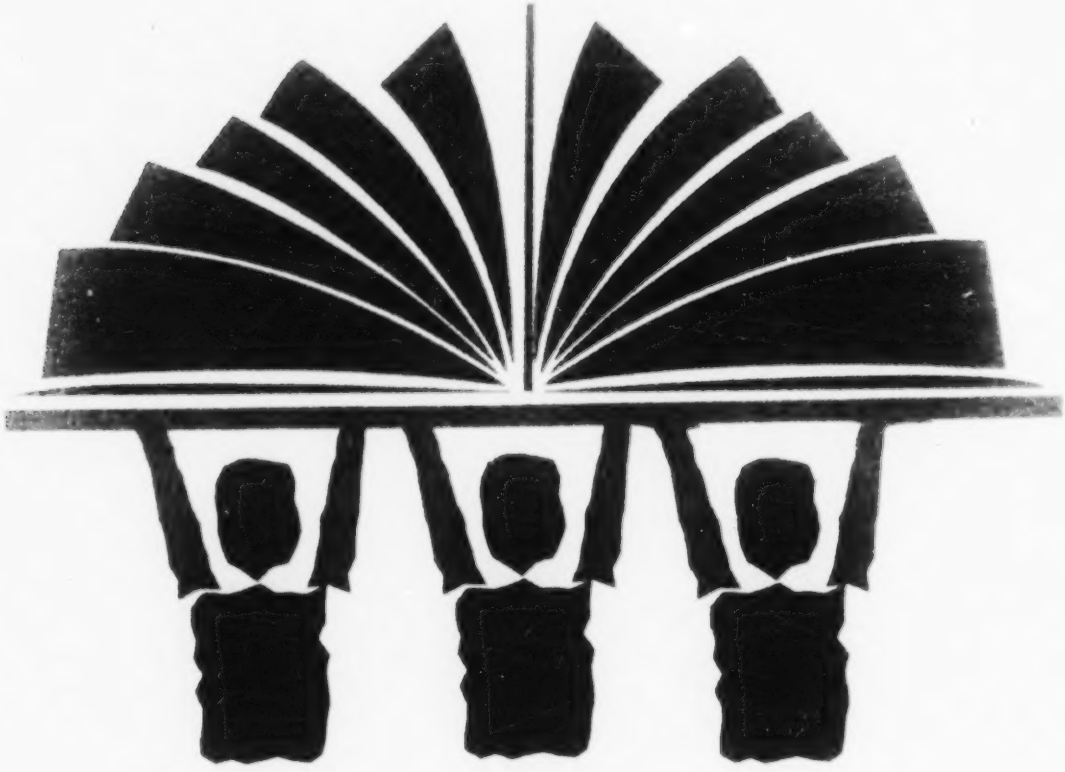
3. The grant was well focused, organized and well executed. The Director and executive team worked effectively together to accomplish project goals and to gain administrative support to establish the Southeastern Center.

4. The affective goals of the grant were more difficult to assess than the behavioral goals (retention, success).

5. The networks and base groups established in the training acted as effective support groups.

6. Evaluation with so many different participants, academic disciplines, and campuses was a difficult process but multi method, multi data, and multi evaluator procedures provide triangulation of the effectiveness of the project.

The Southeastern Center has great potential because of the interest of educators in changing the methodology and delivery of instruction and increasing the competencies of students as identified in the SCANS report. The Center will be as important to graduates as to new trainees. Previous trainees need a support network just as much as new trainees.



Cooperative Learning: A Catalyst for Change in the College Classroom

Final Report

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SOUTHEASTERN CENTER FOR COOPERATIVE LEARNING
Southeastern Center for Cooperative Learning
Florida Community College at Jacksonville
11901 Beach Blvd.
Jacksonville, FL 32246
(904) 646-2102

November 25, 1996

Dora Marcus, Evaluation Specialist
FIPSE Final Reports
U.S. Department of Education
7th and D Street, S.W.
ROB-3/Room 3100
Washington, D.C. 20202-5175

Dear Dora,

Enclosed please find the final report for Cooperative Learning: A Catalyst for Change in the College Classroom (grant # P116B30717-95). Within this package you will find the following documents: all components of the final report as indicated in your letter of July 3, 1996, the report from the external evaluator, and twelve additional resources labeled A through L.

This project has been most successful at Florida Community College, and we will continue our work in enhancing cooperative learning in the college classroom. Thank you for funding this project and for your assistance over the past three years. We look forward to working with you again in the future.

Sincerely,

Susan S. Hill,
Project Director

MISSION
We are dedicated to meaningful learning and excellent teaching, enabling individuals to achieve their hopes, dreams and full potential,and to being a leading partner in creating a dynamic, prosperous community of enlightened leaders and thoughtful, effective, global citizens.